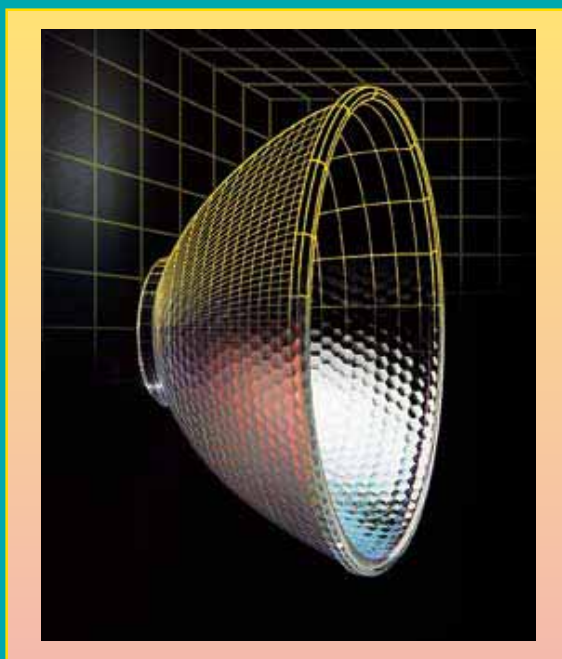


Panasonic
ideas for life



Dicool

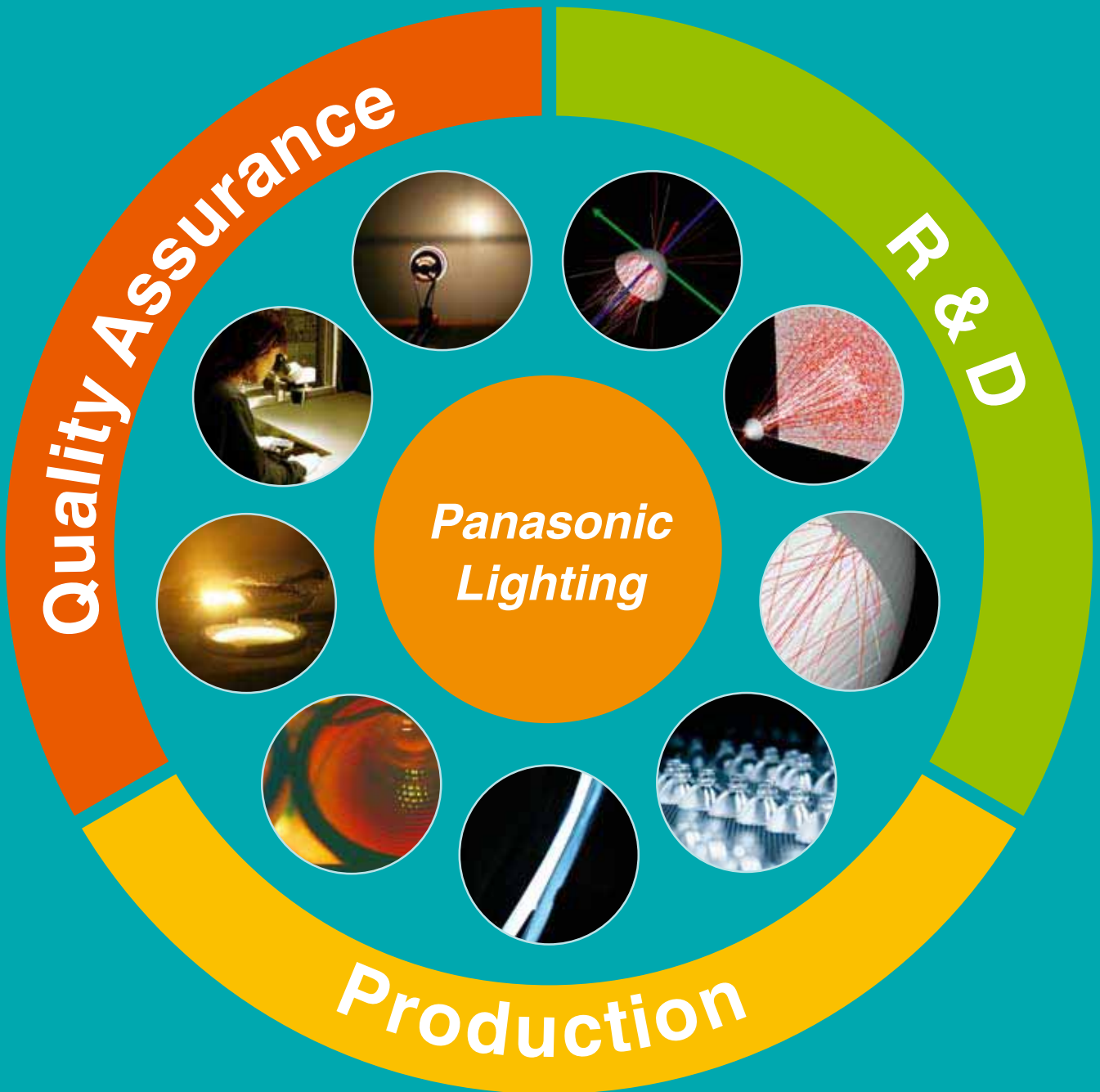
The optical mirrors optimising
quality of light

2007

www.panasonic-electric-works.com

08/2007

Applying Panasonic's innovative Sputter-Deposition Technology (SDT) to the lighting industry.*



* SDT applied models are shown with 

Dicool optical mirrors maximise the power of lamps and the performance of luminaires



Cool light with high efficiency

Reflection ratio: Approx. 91% *
Reduction ratio (IR): Approx. 85% *
Reduction ratio (UV): Approx. 96% *

Easy on environment

Reduction of waste at relamping: Approx. 90% **

Choice of colour temperatures

2000K, 2200K, 2400K, 3000K and 4200K Series are available

* Combination of **SDT** models and HSG75W

** Comparison between MR35 (PAR lamp type) and MT35 with NK01943, 4, 5.

Cool light with high efficiency

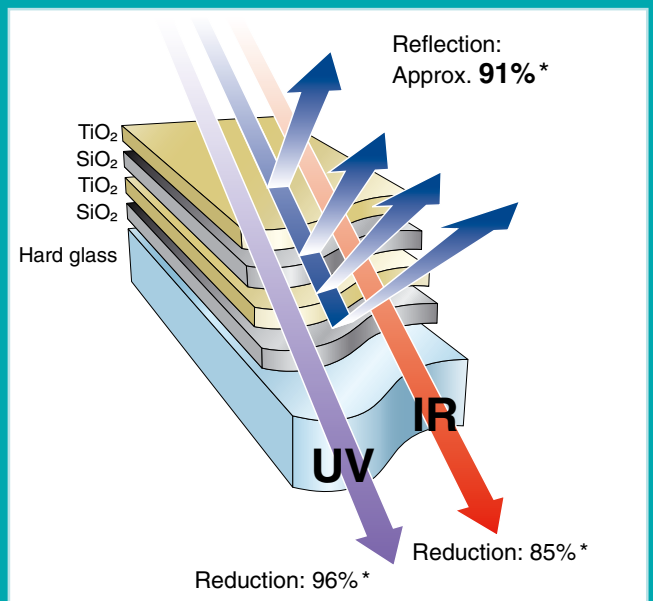
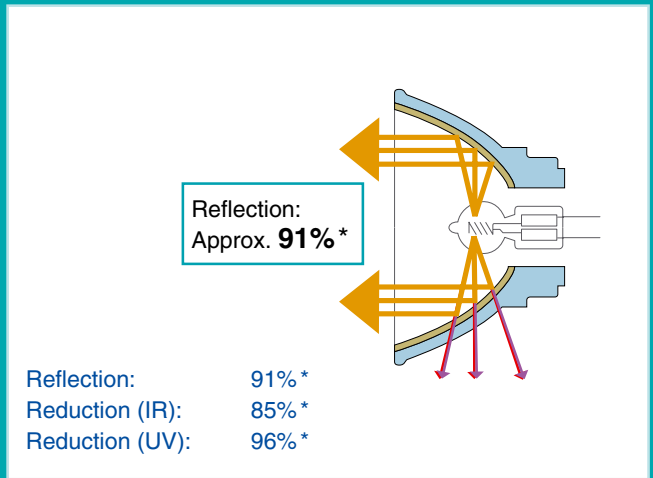
The Dicool Optical Mirror is a dichroic reflector for halogen lamps and discharge lamps at the reflection ratio of 91%* (max.).

The Dicool Optical Mirror only reflects rays in the visible wavelength range. Ultraviolet rays, which are mainly undesired, and infrared radiation, which is responsible for heat development, penetrate the mirror and are thus suppressed.

Cool light from the Dicool Optical Mirror will protect precious foodstuffs and garments from heat deterioration.

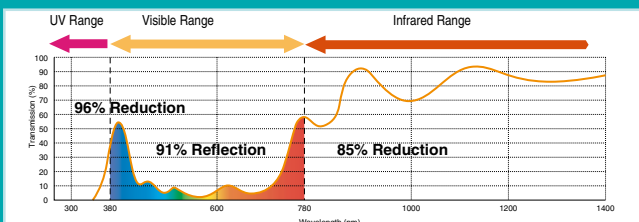
* Combination of SDT models and HSG50W. These figures are approximate.

Principle

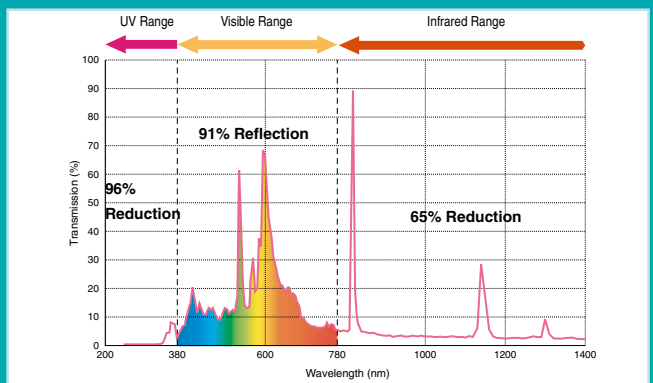


Spectral Power Distribution

HSG50W

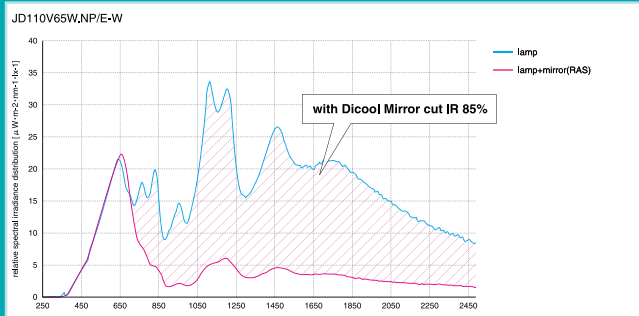


MT 70W

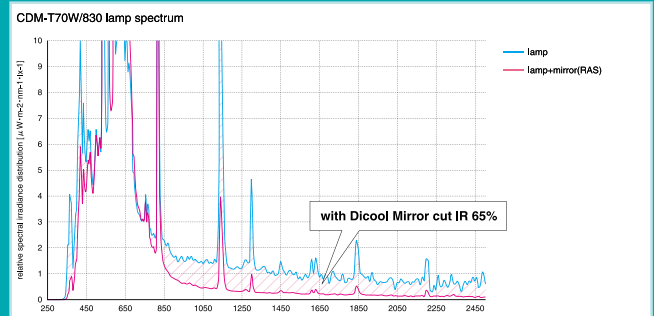


Reduction of infrared ray

HSG50W



MT70W



Heat Deterioration

		UV (UV Factor)	IR (Irradiance mW/m²lx)
Without Dicool	Incandescent lamp	0.015	59
	Halogen lamp (HSG75W)	0.013	45
	Discharge lamp (MT75W)	0.030	8
With Dicool	HSG75W + NK01870	0.008	9
	MT75W + NK01943	0.014	4

Easy on Environment

Reduces the waste by about 90% at relamping, thus minimising the maintenance costs.

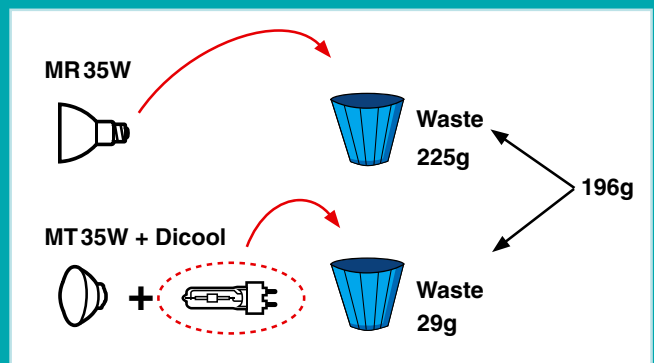
Comparison of Waste



HSG50W + Dicool



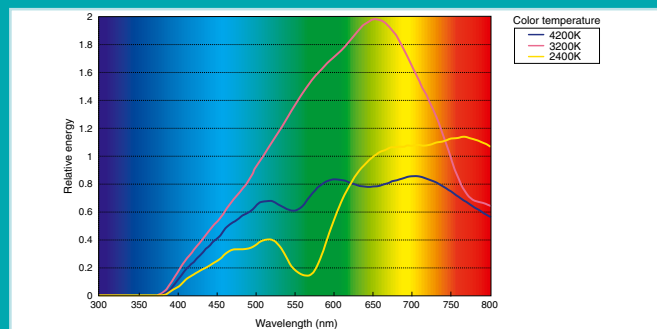
MT35W + Dicool



Choice of Colour Temperatures

Allows the best choice of colour temperature for each application

2000K Series		2200K Series		2400K Series		3000K Series		4000K Series	
Butcher		Fish Mongers		Delicatessen		General Merchandise			




Applications

Supermarkets




- NK01871K (15°)
3000K for grocery
- NK04271 (15°)
2000K for butchery
- NK04371 (15°)
2200K for fishery
- NK04471 (15°)
2400K for delicatessen



Fish Mongers



- NK04371 (15°)
2200K for fishery



Boutiques





NK01943 (10°)
3000K for boutiques




Lamp: MT35W, 70W

need pic
NK01944 in small



NK01944 (20°)
3000K for boutiques



Lamp: MT70W




NK01862K (30°)
3000K for boutiques



Lamp: HSG75W





NK03462 (30°)
4000K for silver




NK01872K (30°)
3000K for gold




Lamp: HSG50W


NK01945K (40°)
3000K for boutiques



Lamp: MT70W





























NK01861K (15°)
3000K for boutiques



Lamp: HSG75W

Dicool Line-up

Lamp	Size (Dia.)	Model No.	Beam Angle****	Reflection Rate (R.R.)	Clip	Page	
 HSG	Dicool 70mm Premium	NK04271		80%*	A	10-12	
		NK04371					
		NK04471					
		NK04272		80%*			
		NK04372					
		NK04472					
		NK01870K		SDT 91%**			
		NK01871K					
		NK01872K					
NK03470		80%***					
NK03471							
NK03472							
 HSG	Dicool 95mm Premium	NK04261		80%*	B	13-15	
		NK04361					
		NK04461					
		NK04262					80%*
		NK04362					
		NK04462					
		NK01860K		SDT 91%**			
		NK01861K					
		NK01862K					
		NK03460		80%***			
		NK03461					
		NK03462					


* Sum of reflection light from 400nm-525nm, 610~780nm

** Sum of reflection light from 400nm-700nm

*** Sum of reflection light from 400nm-560nm

**** Beam angles are approximate and may differ slightly depending on the lamp employed.

Dicool Line-up

Lamp	Size (Dia.)	Model No.	Beam Angle****	Reflection Rate (R.R.)	Clip	Page	
 MT	Dicool 95mm with Protector	NK01943	 10°	 91%**	C	16	
		NK01944	 20°				
		NK01945	 40°				
 12V/100W	Dicool 71mm Classic	NOK00962	 20°	80%	D	17	
		NOK01962	 20°				
		NOK00973	 40°				
		NOK01973					
		NOK00963					
NOK01963							
 12V/100W	Dicool 95mm Classic	NOK01812	 26°	80%		18	
		 220V/100W	NOK01912				 28°
 12V/100W	Dicool 120mm Classic	NOK01800	 8°	80%		19	
		 220V/100W	NOK01802				 30°
			NOK01900				 12°
		NOK01902	 24°				
 HSG	Dicool 84mm Metallic	NDS85007	 7°	 91%**		20	
		NDS85008	 15°				
		NDS85009	 30°				

** Sum of reflection light from 400nm-700nm

**** Beam angles are approximate and may differ slightly depending on the lamp employed.

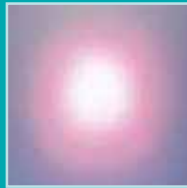
Dicool 70mm Premium

2000K

R.R.: 80%



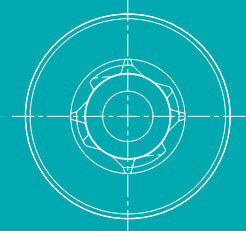
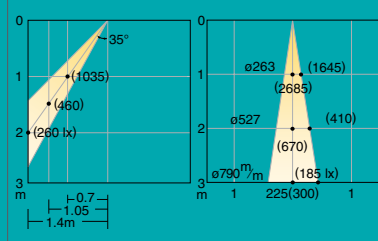
HSG



NK04271



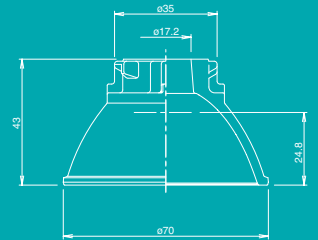
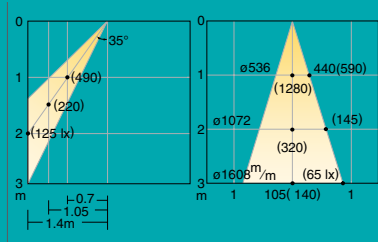
15°



NK04272



30°



74g
Clip A

2200K

R.R.: 80%



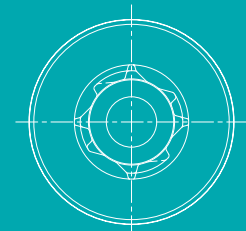
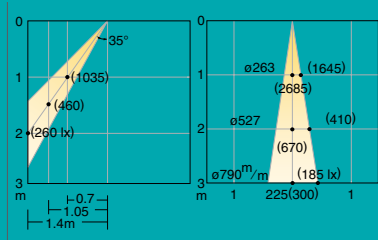
HSG



NK04371



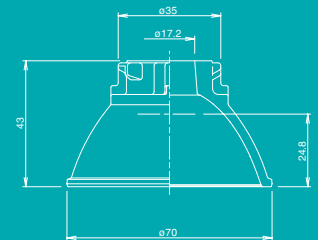
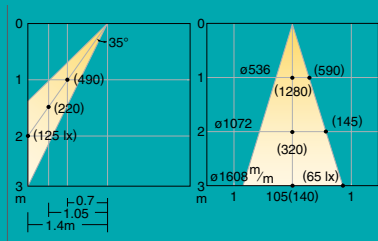
15°



NK04372



30°



74g
Clip A

Light distribution curve shows the case of HSG50W.

Dicool 70mm Premium

2400K
R.R.: 80%



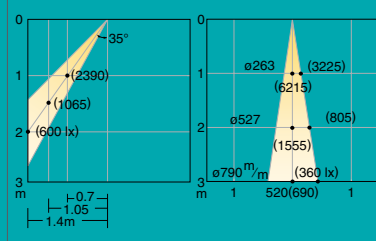
HSG



NK04471



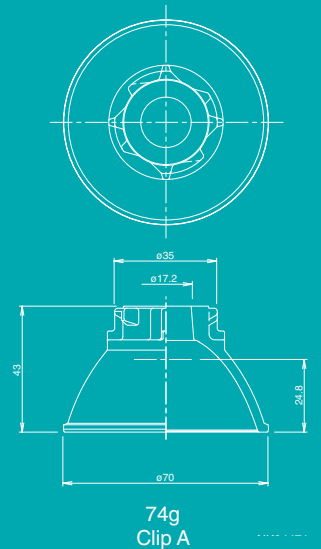
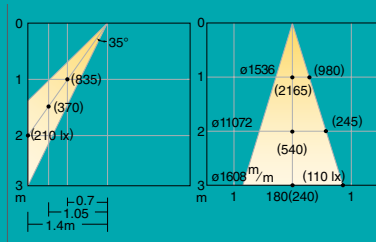
15°



NK04472



30°



3000K
R.R.: 91%



HSG

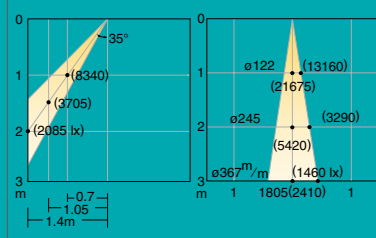


NK01870K



SDT

7°

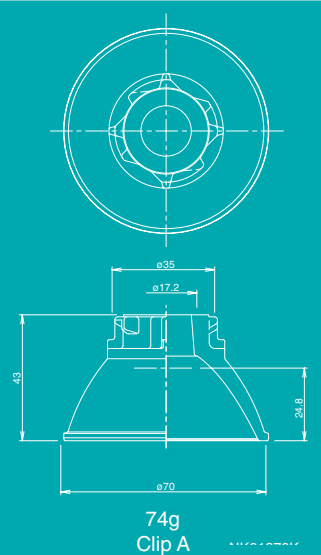
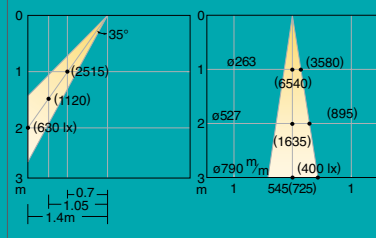


NK01871K



SDT

15°



Light distribution curve shows the case of HSG50W.

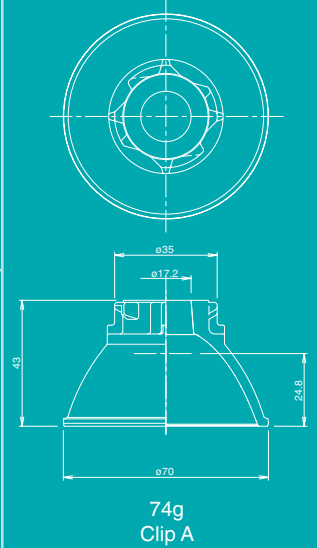
Dicool 70mm Premium

3000K

R.R.: 91%

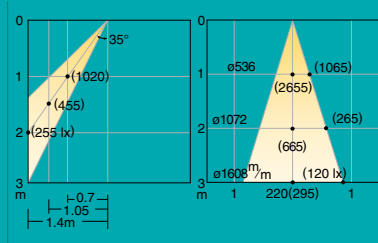


HSG



NK01872K

SDT



4200K

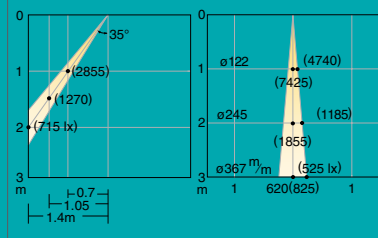
R.R.: 80%



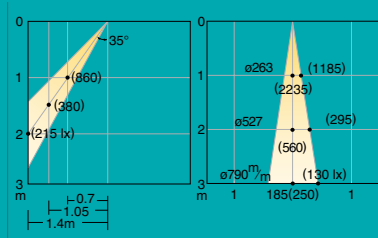
HSG



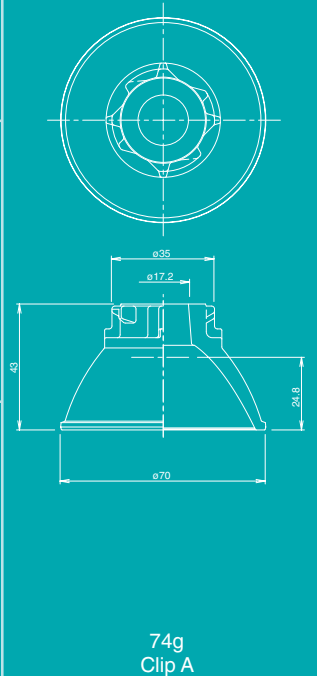
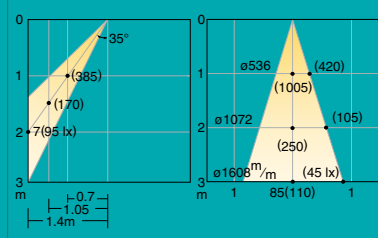
NK03470



NK03471



NK03472



Light distribution curve shows the case of HSG50W.

Dicool 95mm Premium

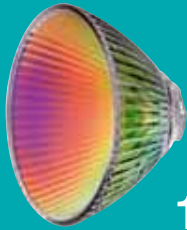
2000K
R.R.: 80%



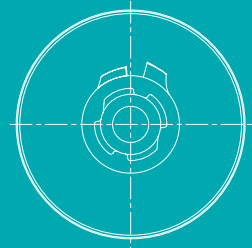
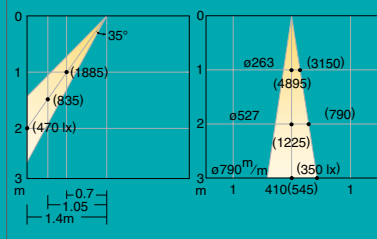
HSG



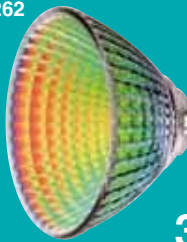
NK04261



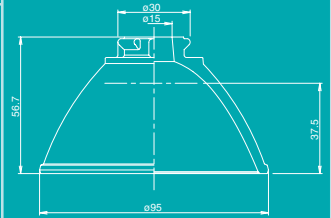
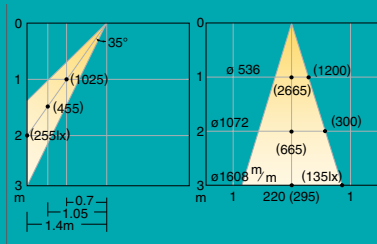
15°



NK04262



30°



134g
Clip B

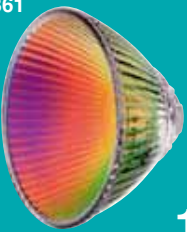
2200K
R.R.: 80%



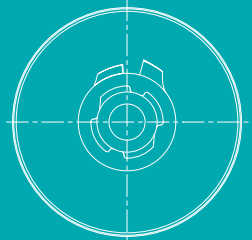
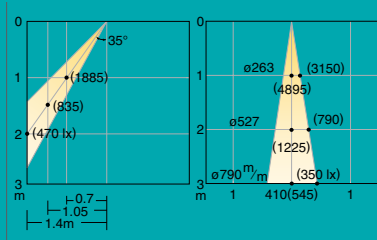
HSG



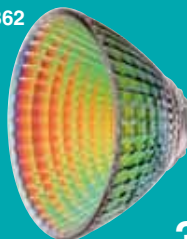
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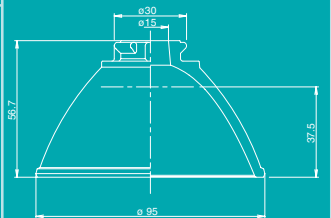
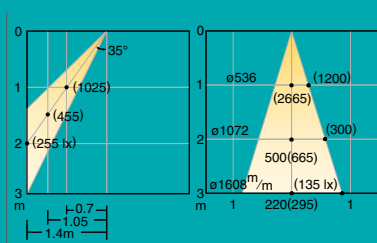
15°



NK04362



30°



134g
Clip B

Light distribution curve shows the case of HSG50W.

Dicool 95mm Premium

2400K

R.R.: 80%



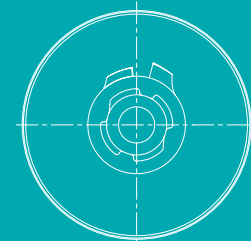
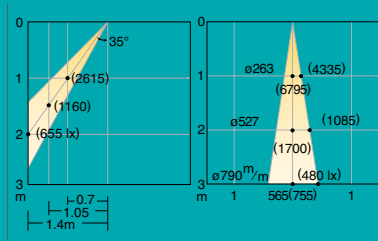
HSG



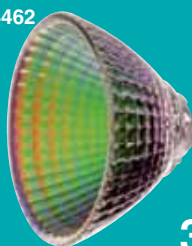
NK04461



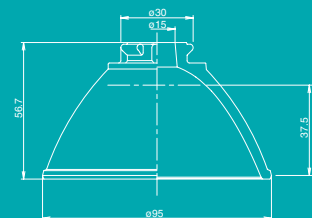
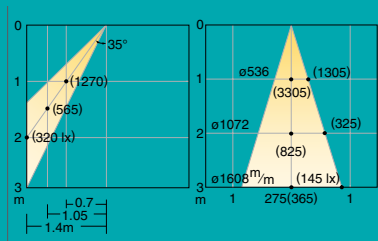
15°



NK04462



30°



134g
Clip B

3000K

R.R.: 91%



HSG

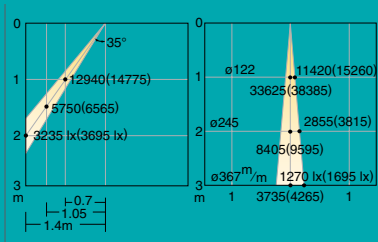


NK01860K

SDT

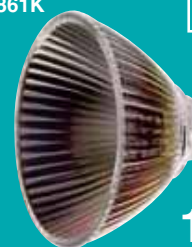


7°

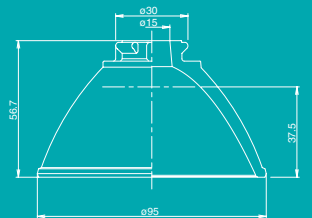
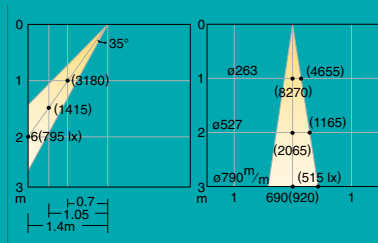


NK01861K

SDT



15°



134g
Clip B

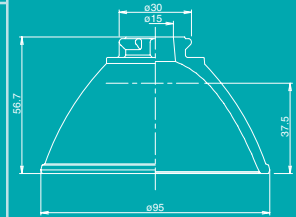
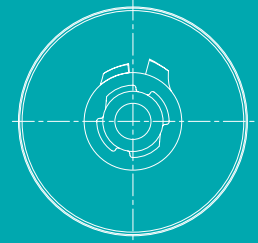
Light distribution curve shows the case of HSG50W.

Dicool 95mm Premium

3000K
R.R.: 91%



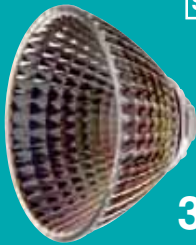
HSG



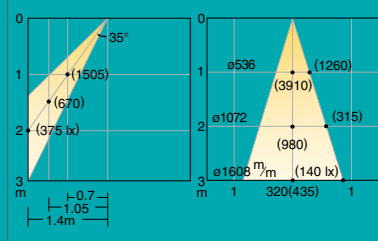
74g
Clip A

NK01862K

SDT



30°



4200K

R.R.: 80%



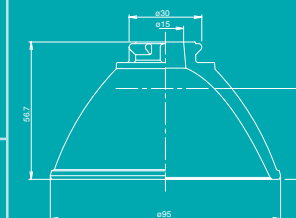
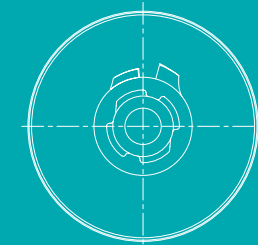
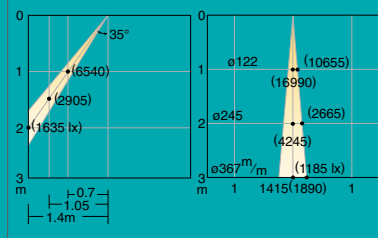
HSG



NK03460



7°

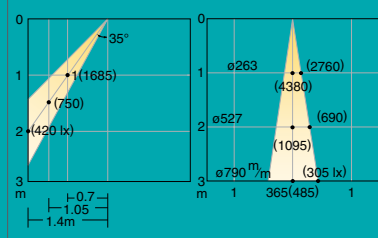


134g
Clip B

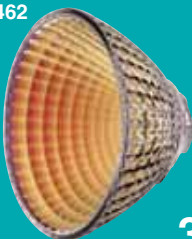
NK03461



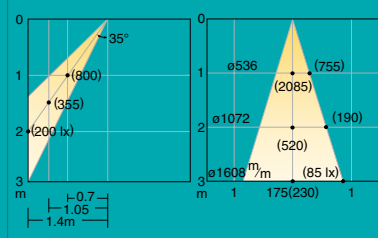
15°



NK03462



30°



Light distribution curve shows the case of HSG50W.

Dicool 95mm Premium

3000K

R.R.: 91%



MT

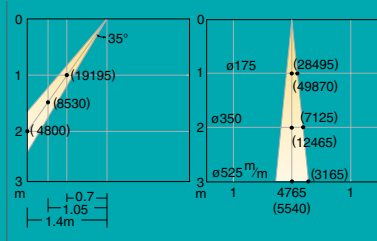


NK01943K

SDT



10°

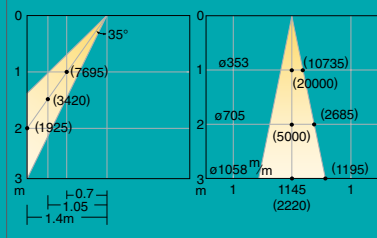


NK01944K

SDT



20°

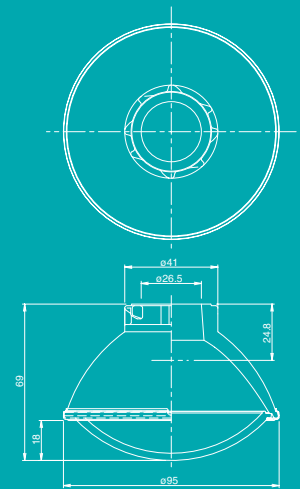
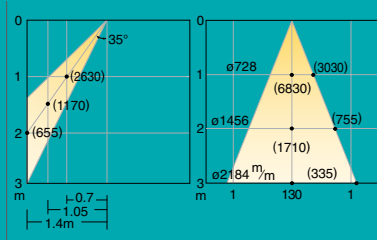


NK01945K

SDT



40°



134g
Clip B

Dicool 71mm Classic

3000K

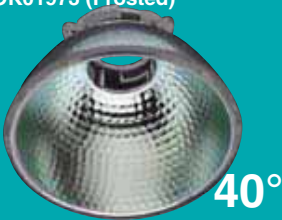
R.R.: 80%



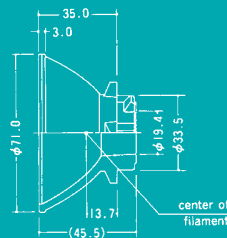
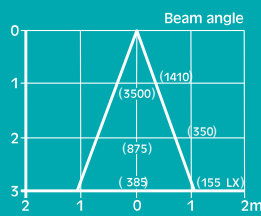
HSG



**NOK00973 (Basic)
NOK01973 (Frosted)**



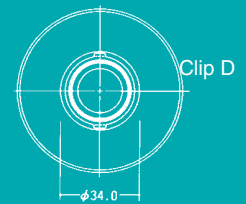
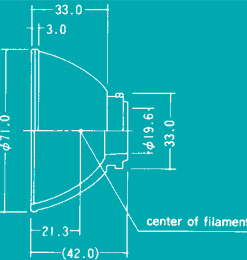
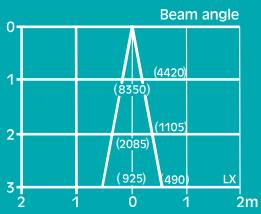
40°



**NOK00962 (Basic)
NOK01962 (Frosted)**



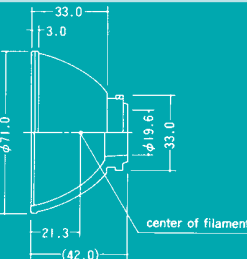
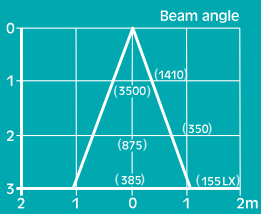
20°



**NOK00963 (Basic)
NOK01963 (Frosted)**



40°



Light distribution curve shows the case of HSG50W.

Dicool 95mm Classic

3000K

R.R.: 80%



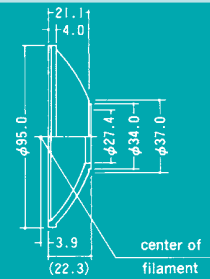
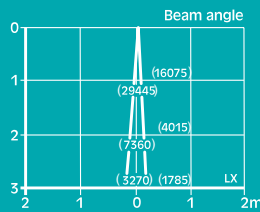
HSG



NOK01810 (Basic)



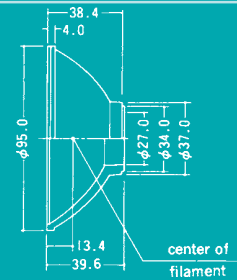
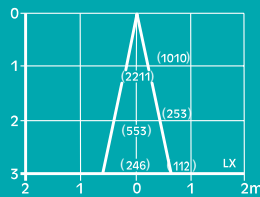
8°



NOK01912 (Basic)



28°



Dicool 120mm Classic

3000K

R.R.: 80%



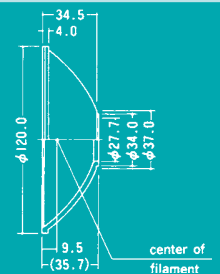
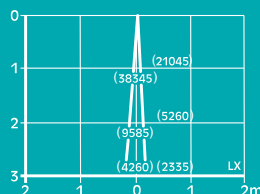
HSG



NOK01800 (Basic)



8°



Light distribution curve shows the case of HSG50W.

Dicool 120mm Classic

3000K

R.R.: 80%



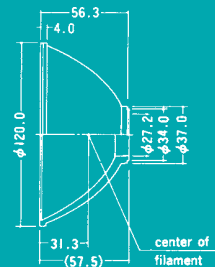
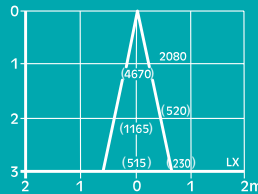
HSG



NOK01802 (Basic)



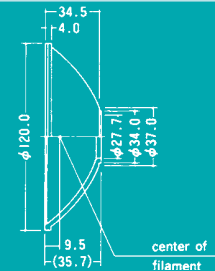
30°



NOK01900 (Frosted)



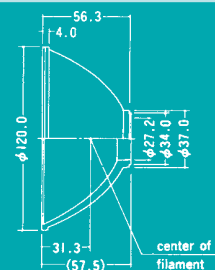
12°



NOK01902 (Frosted)



24°



Light distribution curve shows the case of HSG50W.

Dicool 84mm Metallic

- Material: Aluminium
- Thickness: 1mm
- Mounting: Directly to luminaire (no clip required)
- Permissible temperature (max.): 250°C

3000K

R.R.: 91%



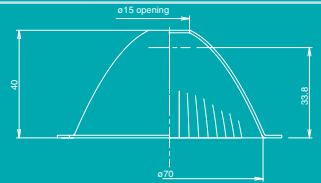
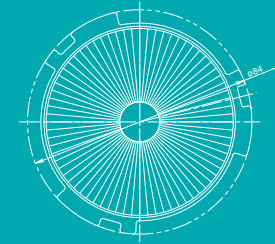
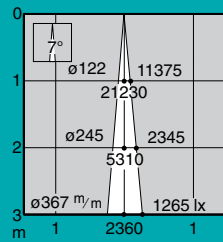
HSG

NDS85007

SDT



7°

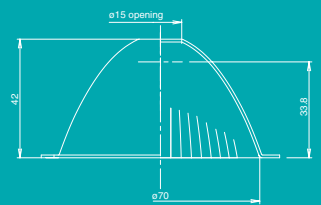
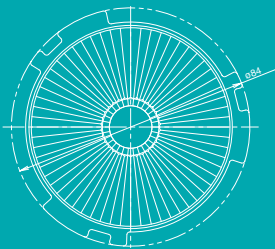
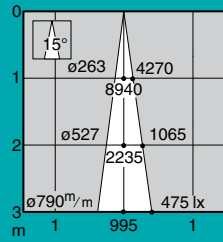


NDS85008

SDT



15°

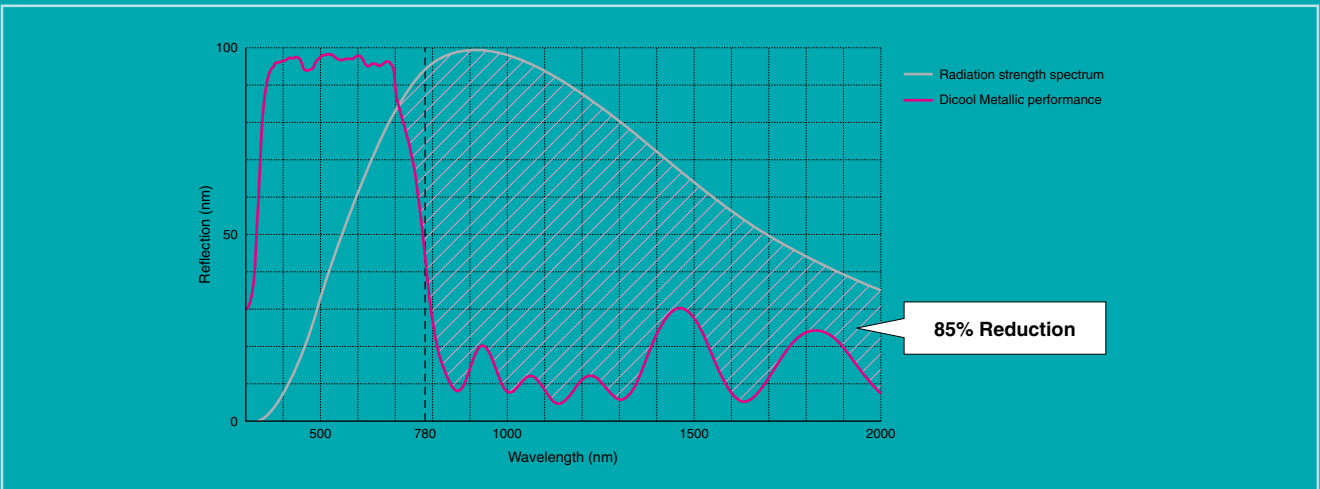
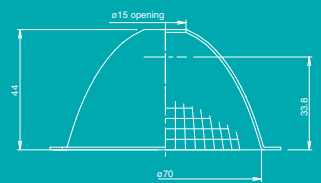
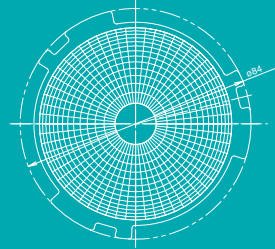
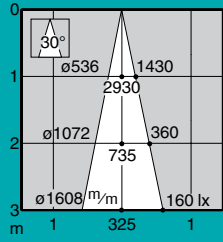


NDS85009

SDT



30°



Light distribution curve shows the case of HSG50W.

Dicool Filter

UV-IR cut filter

The Dicool filter prevents ultra violet and infra-red rays from being transmitted. A thin dichroic film is coated on 4mm thick reinforced glass. This enables transmittance far superior to that of conventional absorption glass UV filters while maintaining excellent colour transmittance properties.



Model no.: NOK00990-xxxmm
 Standard dia (xxx): 66, 85, 90, 114
 Custom made dia. (xxx): 45-200mm
 Permissible temperature: 200 degr. C
 Thickness: 4mm
 Transmission curves: Please refer to attached data

